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DEPARTMENT OF WATER RESOURCES
REPROGRAPHICS

CALFED
BAY-DELTA
PROGRAM

The CALFED Bay-Delta Program

Response to Comments

September 1996-June 1997

November 1997

C—004783

C-004783

CALFED
BAY-DELTA
PROGRAM

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Memorandum

Date: November 24, 1997

To: Interested Parties

From: Lester A. Snow, Executive Director

Subject: *The CALFED Bay-Delta Program Response to Comments II*

The CALFED Bay-Delta Program is a joint state-federal effort to develop long-term solutions to problems of the Sacramento/San Joaquin Bay-Delta system. The solution-finding effort focuses on ecosystem quality, water supply reliability, water quality and the integrity of the Bay-Delta system.

The attached document, *The CALFED Bay-Delta Program Response to Comments II,* is a summary of the comments received from September 1996 through June 1997, and includes our response to many of the issues raised. A previous summary is available concerning comments from 1995 through August 1996. While each of the individual comment letters and oral comments are part of our record and have been reviewed by Program staff, it would be impossible to list each specific comment received. The hundreds of comments received during the period covered in this summary are synthesized by category to identify and highlight issues, making it possible for us to respond to a great number of individual comments in this summarized format.

I wish to express my appreciation to all of you who have taken the time to attend a Program event or send us your thoughts and concerns. We are indebted to each of you and look forward to your continued involvement.

Attachment

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C—004785

C-004786

Expanding the scope of the CALFED Bay-Delta Program to include entire watersheds upstream of the Bay-Delta is not within CALFED's mandate. CALFED should first establish restoration objectives, targets, and actions for the Delta.

CALFED restoration plans must include watershed areas both above and below dams.

CALFED should include all of San Francisco Bay in its planning process, including the ERPP, and should include restoration and acquisition projects for the entire Bay.

CALFED suggests that restoration projects must show nexus with the Delta; however, little is known about the habitat needs and movements of fish and wildlife between the north and south Bay. Selecting and implementing restoration projects without understanding such interrelationships may hamper the effectiveness of the restoration efforts.

The Program is developing an ecosystem management approach to restoring the Bay-Delta ecosystem. Ecosystem management uses ecological boundaries--such as watersheds--rather than political or jurisdictional boundaries--such as county boundaries or agency mandates--to define a planning area. The Program is wary of confining restoration activities to the Bay-Delta, which might fail to account for important ecosystem stressors so that funds spent to finance Bay-Delta restoration will fall short of meeting ecosystem objectives. While restoration activities will occur throughout the Bay-Delta and its tributary watersheds, the bulk of restoration activities will occur in the Delta, the North Bay, the Sacramento River, the San Joaquin River and the tributary watersheds directly connected to the Bay-Delta system below major dams and reservoirs. The Program is focusing restoration activities in this primary geographic region since there is greater knowledge of habitat needs for aquatic and wildlife resources in this region, so that restoration actions will be more likely to meet ecosystem objectives. The relationship between aquatic and wildlife habitat needs and the upper watershed areas, South San Francisco Bay, and the near-shore ocean is less clear, making it difficult to establish implementation objectives and targets for these regions; consequently, the ERPP does not directly include this secondary region, but rather addresses this region through general actions that focus on watershed processes or reduction of stressors. Research activities designed to explore aquatic and wildlife habitat needs in this secondary region are eligible for Category III funding.

What is the appropriate CALFED forum for exploring watershed management issues?

CALFED should convene a technical team to provide input for the watershed component of this Program; otherwise, it is possible that potential watershed benefits will not be reviewed and recognized.

Currently, BDAC is the appropriate forum for exploring watershed management issues, though the Ecosystem Restoration Work Group and Water Quality Technical Team will be also be addressing watershed management components in the future. CALFED Program staff is developing a Watershed Management Strategy, which will provide a framework for developing a watershed management program. The strategy will soon be available for public review.

C—004786

C-004787

CALFED should explain the process used to establish restoration objectives and targets in the Ecosystem Restoration Program Plan (ERPP).

Program staff consulted numerous sources to develop the Ecosystem Restoration Program Plan (ERPP), including:

- county, state and federal agency reports, and restoration and recovery plans
- peer-reviewed articles and books
- non-governmental organization reports
- state and federal agency personnel
- stakeholder technical experts
- local land and water managers

It is difficult to understand the relationship between implementation objectives, targets and actions in the ERPP. It is also difficult to understand the relationship between the various implementation objectives.

Most of the ERPP's objectives and targets are so vague that they preclude evaluation of the proposals.

CALFED must establish quantitative, measurable objectives and targets to define what constitutes success in restoring ecological health in the Bay-Delta system and establish some time scale for their completion. Such criteria are necessary to evaluate the impacts of the Alternatives in the EIR/S process.

It is difficult to evaluate the ERPP's objectives and targets without knowing the scientific rationale underlying them or the adaptive management methodology to be employed. CALFED should cite the source of the objectives and targets and explain their scientific basis.

Stakeholders have helped spur the development of the ERPP by referring Program staff to specific reports and articles and by reviewing drafts of the ERPP. Many helpful suggestions from both stakeholders and agency personnel have helped Program staff to revise the ERPP extensively to improve its clarity and utility by: (1) including the phrase "in order to" to provide an explicit statement of what each implementation objective should achieve, (2) providing the scientific rationale underlying the implementation objectives and targets, and (3) citing sources of information. We have strived to provide numerical targets in the ERPP; however, some of the targets still lack specificity owing to lack of technical expertise or sufficient scientific data to support quantification. We will continue work to quantify targets.

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C-004788

CALFED should relate the ERPP implementation objectives with the targets to form a landscape-level vision.

It may be unnecessary for CALFED to establish a "vision" for its restoration program. The implementation objectives may be sufficient.

When will CALFED tie implementation objectives and targets in the ERPP to geographic areas or ecological units?

The ERPP should include a long-term monitoring plan to be used once goals are achieved to ensure that the ecosystem will continue to be protected and remain healthy.

CALFED must address the apparent conflict between the need for such regulatory assurances and adopting an adaptive management approach.

CALFED should eliminate any duplication or overlap between targets in the ERPP, and ensure that targets are reasonable so that future water users or a particular geographic region will not suffer.

The current draft of the ERPP includes three volumes. Volume I contains the ecosystem vision of CALFED's restoration program. Volume II contains the implementation objectives, targets and programmatic actions for the 14 ecological zones that CALFED has delineated. Volume III describes the adaptive management approach that CALFED will use to monitor and revise restoration activities, as well as the phasing process for achieving targets. Volume III will address the conflict between regulatory assurances and adaptive management flexibility, though it is not likely to resolve all uncertainties. Other program elements, such as the BDAC Assurances Work Group, will continue to explore means for providing both regulatory assurances and adaptive management flexibility.

Since distribution of Volume I in mid-August, we have received many comments on the ERPP. The Program is working on a specific ERPP response to comments summary to be released shortly.

Many of the restoration targets in the ERPP, especially the riparian and in-delta targets, are very modest and do not appear adequate to achieve ecosystem quality objectives.

CALFED must make better progress in addressing conditions for salmon in the San Joaquin River system, which includes addressing the extensive diversions from the San Joaquin River.

The recent draft of the ERPP presents the updated vision and actions for both the Sacramento-San Joaquin Delta and the San Joaquin River Ecological Zones. Revised targets for the Sacramento-San Joaquin Delta Ecological Zone now include restoration of as much as 150,000 acres of habitat. Actions for the San Joaquin River Ecological Zone include improving streamflows through purchase of water and managing flow releases, as well as reducing fish entrainment and improving water quality. Revised targets for each Ecological Zone are available in Volume II of the current ERPP.

C—004788

CALFED should work with local interests, including landowners, to develop ecosystem restoration targets and objectives by ecological zone. CALFED's development of objectives and targets is premature; rather, CALFED should support existing locally based planning efforts.

CALFED environmental restoration efforts must be accomplished with strong local input.

Stakeholders have participated extensively in the development of the ERPP through the Ecosystem Restoration Work Group, which helped develop the framework for the Program's ecosystem restoration program. Program staff has also worked with local interests, including SB 1086 Advisory Council and local conservancies, to help develop the implementation objectives and targets for the ERPP's ecological zones and units. We realize that locally based ecosystem management must be part of the long-term management of the Bay-Delta ecosystem. Local stakeholder involvement in ecosystem management can not only provide local expertise, but also potentially catalyze several associated benefits, such as the integration of ecosystem management within the city/county general planning process and the development of local stewardship programs. In order to combat a fragmented approach to managing the Bay-Delta ecosystem, we envision regional coordination of such local efforts.

In addition to restoring habitat, CALFED should identify threats to existing habitat and attempt to minimize those threats.

One of the fundamental goals of the ERPP is to reduce or eliminate the stressors harming ecosystem functions and processes, which includes threats to existing habitat.

The ERPP should include targets that reflect human recreational use of ecosystems.

Restoring the ecosystem can enhance certain recreational uses--such as sportfishing, birdwatching, and swimming--by restoring and protecting sustainable populations of fish and wildlife and by improving water quality. However, human recreational use of ecosystems can also be a stressor on ecosystem functions and processes. CALFED will consider multi-purpose restoration projects where it is possible to balance recreational use with habitat value; however, since the ERPP is designed to restore ecosystem function and processes, it will not include implementation objectives or targets for recreational use. Other program components, such as the storage component, may provide other recreational opportunities such as boating and swimming.

C-004789
C-004789

Public education should be a critical component of the Ecosystem Restoration Program.

While much of the ecosystem degradation in the Bay-Delta is the result of historical actions, current human actions both within and outside the watershed also impede ecosystem functions and processes. In this respect, public education can play an important role in restoring the Bay-Delta. Public education can serve as a means for achieving implementation objectives and targets embodied in the ERPP, and public education programs are currently eligible for Category III funding.

CALFED should view screening of the SWP and CVP pumps a high priority.

The ERPP has established reductions of direct mortality and entrainment of fish as major objectives. Proposed measures to achieve these objectives include screening and consolidation of diversion facilities and pumps.

CALFED should not limit its ecosystem objectives to "valuable" species since it is difficult to achieve consensus on what species are valuable.

While CALFED should use listed species and species of concern as indicators of ecosystem health, CALFED must maintain a view of restoration at the landscape level. The overall goal should be to restore ecosystem function.

The Program is adopting an ecosystem approach to address all species within an ecosystem by focusing upon restoring ecosystem functions and processes rather than populations of individual species. However, we will examine the health of certain individual species as indicators of broader ecosystem health, and we will prioritize projects for implementation to first address the needs of endangered and threatened species.

CALFED should not propose maintaining harmful non-native species as a restoration activity.

Removing a percentage of an exotic population is an inappropriate objective. Rather, CALFED should identify those exotics that disrupt natural processes and selectively attempt to eradicate the species throughout it distribution.

The Program has developed a 4-tier process to address introduced species. (1) The Program proposes actions to reduce introductions of exotic species. (2) For established introduced species that are clearly harmful to ecosystem processes and functions, the Program recommends eradication programs to the maximum extent practicable. (3) For introduced species that provide some beneficial purpose, such as sportfishing, the Program recommends maintaining current population levels. (4) For certain introduced species , such as striped bass, the Program will follow the mandate of state and federal agencies to restore and maintain populations so long as such efforts do not impede the restoration of native species.

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It is critical that CALFED provide for outside review of its Ecosystem Restoration Program Plan (ERPP) by a panel of nationally prominent experts representing a broad range of relevant technical disciplines. The panelists should have no stake in the outcome--to ensure objectivity.

The ERPP Peer Review process should address both general and specific technical questions and should provide opportunity for stakeholder input.

The ERPP Peer Review panel should be supported by a team of technical experts experienced in Bay-Delta issues and data. This team of technical experts should be balanced to represent multiple points of view.

One 3-4 day workshop for the ERPP Peer Review is probably insufficient. CALFED should organize several 3-4 day workshops.

The ERPP Peer Review panel should be guided by specific, pre-established questions that are developed and agreed upon by stakeholders in advance of the workshop.

The Program convened a scientific review panel of recognized ecosystem experts to evaluate the Ecosystem Restoration Program Plan (ERPP). The Program, working with the BDAC Ecosystem Restoration Work Group, compiled a list of panelists representative of the various scientific disciplines involved in regional ecosystem restoration. The scientific panel consisted of 8 experts with experience in large-scale restoration projects, but with no vested interest in the restoration of the Bay-Delta. The scientific panel was supported by a Technical Advisory Group of scientists with experience in Bay-Delta ecology.

The Program convened a 4-day workshop for the panel October 6-9, 1997, and all of the panel meetings were public. The Program, working with the Ecosystem Restoration Work Group, developed a series of questions to guide the panel's efforts. The workshop included opportunities for facilitated public comment, and members of the public were able to submit written comments to the panel as well. The panel documented its observations and recommendations in a written report available for public review after November 1.

CALFED must ensure that the ERPP implementation objectives and targets produce an integrated restoration program. The ERPP's implementation objectives and targets should also be consistent with the multipurpose objectives of the overall Bay-Delta Program.

The ERPP is being developed as a stand-alone program that does not consider conveyance options. The ERPP will not include the environmental mitigation required for any facilities proposed as part of the alternatives. How will the mitigation measures be developed and how will they be integrated with the ERPP? CALFED should develop all programs simultaneously and integrate them thoroughly.

We do not consider the Ecosystem Restoration Program to be a standalone component of the preferred alternative; rather, the ecosystem restoration component will mesh with the other components (levee system integrity, water supply reliability, water quality, storage and conveyance) to form a coherent preferred alternative. The ERPP is designed to serve as a blueprint for coordinating and prioritizing *restoration* projects in the Bay-Delta; it does not cover any *mitigation* measures that may be necessary to offset any unavoidable impacts of other components of the preferred alternative. We will work to *coordinate* any mitigation activities with restoration activities so as to maximize their ecological benefit, but any mitigation actions will be developed separately from the ERPP planning effort.

C-004791

CALFED should support agriculture since it provides habitat and can promote the Program's environmental goals. CALFED should examine a program developed by the California Farm Bureau Federation to encourage the agricultural community to provide habitat for endangered and threatened species.

CALFED must develop assurances that encourage landowners to participate in habitat enhancement programs by providing safe harbor from uncertainties engendered by the Endangered Species Act. CALFED must provide regulatory assurances to water users who install expensive state-of-the-art fish screens that state or federal agencies will not require expensive upgrades or modifications. CALFED should also consider cost-sharing such projects.

The ERPP, in conjunction with the preferred alternative, should produce a comprehensive Habitat Conservation Plan that covers all facilities that are part of the preferred alternative.

CALFED realizes the vital role that private landowners must play in helping to protect and restore endangered and threatened species and their habitats. CALFED has begun the planning process for developing a Habitat Conservation Plan (HCP) as authorized by the Endangered Species Act. An HCP is an agreement between the Fish and Wildlife Service or the National Marine Fisheries Service and private landowners. It is designed to protect endangered species and their critical habitat while allowing certain land management practices to continue on private land. By providing landowners foreknowledge of acceptable land management practices, HCPs can encourage voluntary participation in habitat enhancement projects to protect endangered and threatened species on private land. HCPs also assure landowners that any new regulatory requirements precipitated by additional listings of species will be funded by government agencies if the new regulatory requirements associated with a new listing are not covered by an existing HCP.

CALFED initiated a scoping period regarding the HCP from early September through mid-October, during which time members of the public were able to comment upon the scope of the HCP. CALFED also held five public scoping meetings regarding the HCP, throughout the state, in September through October of 1997.

CALFED should abandon any ideas of breaching Delta levees to make areas subject to tidal influence, since such measures will: displace locally important economic activities like farming; compromise surrounding levees; and degrade water quality by allowing greater saltwater intrusion.

The ERPP proposes a three-tier approach to restoring tidal habitat: (1) Large-scale restoration of tidal habitat will occur in areas where land elevations are currently sufficient (3-6 ft. in depth) to support tidal habitat. (2) Smaller scale restoration of tidal habitat will occur by setting back levees where levees currently protect only small protrusions of land. (3) Water-side berms built in conjunction with the Levee System Integrity program will provide restoration opportunities for tidal habitat.

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The ERPP should include descriptions of historical actions that have caused the degradation of specific ecosystem functions and processes.

CALFED realizes that several factors have contributed to the decline of the Bay-Delta ecosystem. Owing to the complexity of ecosystem processes and the duration and scale of human changes in the landscape, it is difficult to trace specific impacts to specific actions with certainty; nevertheless, research can identify general stressors, such as a lack of sufficient instream flow, loss of habitat, and water quality problems. The ERPP focuses upon identifying and addressing stressors so as to restore ecosystem function rather than assessing responsibility or ascribing blame for ecosystem degradation. CALFED is aiming to restore ecosystem function by addressing many different sources of ecosystem degradation. For instance, the ERPP aims to improve ecosystem function through habitat restoration and improved in-stream flows, the Water Quality program will improve water quality for both human and aquatic resources, the levee system integrity program attempts to protect both human and natural environments from catastrophic levee failure, the conveyance component will explore re-operating existing conveyance and storage facilities to both reduce the effects of diversions and improve in-stream flows, and the storage component will explore providing storage to augment in-stream flows. Several factors have contributed to the decline of the Bay-Delta ecosystem, and a comprehensive approach is necessary to restore ecosystem function.

CALFED's Ecosystem Restoration Program simply assumes that a lack of flows are the principal source of ecosystem degradation. Such an assumption is scientifically unproven. Other potential stressors should be investigated, including toxics and overfishing. CALFED's expensive restoration plan may yield few ecosystem benefits if the appropriate stressors are not eliminated.

Many of the ERPP objectives seem to require water users to make even greater sacrifices than those provided by the Bay-Delta Accord, which conflicts with CALFED's objective of improving water supply reliability. CALFED should focus upon restoring large areas of aquatic habitat rather than focusing upon additional outflow requirements.

Meeting environmental flow improvements should not be contingent upon new storage and conveyance facilities.

New storage and conveyance facilities are only one means that the Program is exploring to improve streamflow for environmental uses. Other means include the re-operation of existing conveyance and storage facilities as well as purchasing water from willing sellers.

Maintaining low water temperatures in the Delta seems to conflict with the goal of expanding the amount of shallow flooded habitat.

While expanding shallow water habitat may increase water temperatures, the Program also plans to develop "temperature refugia" for aquatic resources through restoration of shaded riverine habitat.

C—004793

Setback levees, river meander projects, and riparian restoration may alter river levels, flows, and/or direction so that they interfere with existing diversion facilities, fish screening facilities, and levee maintenance and repair.	CALFED is conducting a *programmatic* EIR/EIS, and as part of this programmatic analysis, we will consider the general benefits and impacts of all program elements, including setback levees and river meander projects. At the programmatic level, we will not consider such specific elements as phasing for such specific projects, which is more appropriate at the site-specific, project-level EIR/EIS analysis that will be part of Phase III.
CALFED must establish responsibility for potential liability caused by river meander projects.	
CALFED should develop a phased approach to setback levee and river meander implementation. The first phase should include a feasibility study, followed by demonstration projects that assess the hydrologic, biological, and flood control impacts. Following demonstration projects, full implementation of river meander projects, levee setbacks, riparian forest restoration, and land acquisitions/easements should employ a planning process that allows stakeholders to participate in prioritizing projects.	
Some of the implementation objectives and targets are inconsistent with the goals and objectives contained in other important river management plans.	Other river management programs have had different objectives, often to mitigate for human actions. The goal of the Program's restoration program is to **restore** ecosystem function rather than to mitigate the impacts of specific projects, and the scope of the Bay-Delta Program is generally much broader than other river management plans. Consequently, the Program's objectives often include the objectives of pre-existing plans.
CALFED should streamline environmental permit processing.	CALFED is unique in the level of cooperation and coordination among both state and federal agencies, which provides us with significant opportunities to create innovations in government process, including regulatory permitting. The preferred alternative may include suggestions for improving regulatory permitting as part of an assurances or legislative packet, which could be pursued in Phase III of the Program. Streamlining the permitting process could not only benefit permittees, but also permitting agencies by freeing up limited agency resources.

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C—004794

CALFED will eventually need to affix a cost/benefit ratio for the various habitat types to be restored.	Though the Program will not conduct cost-benefit analyses of habitat restoration, the concept of cost-benefit analysis is embodied in the adaptive management paradigm, which revises restoration and management activities as knowledge of general ecosystem processes and specific restoration projects improves. Adaptive management aims to ensure that funds generate the greatest benefit.
CALFED must identify long-term, reliable sources of funding to assure the continuation and maintenance of restoration projects.	Both the BDAC Assurances Work Group and the Finance Work Group will be developing the assurances package and financial plan to address such issues as providing stable, long-term funding for habitat restoration and monitoring.

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C-004795

CALFED should adopt the AB 3616 Agricultural MOU as its approach toward agricultural water use efficiency. Implementation of water use efficiency measures should be voluntary, and CALFED should emphasize providing incentives for implementation rather than developing disincentives.

CALFED should identify water use efficiency plans as either voluntary or mandatory. Voluntary implementation of efficiency measures that is policed by a state agency is **not** voluntary. CALFED should be wary of opening water rights licenses to compel water agencies to comply with conservation programs.

Water use efficiency measures should be voluntary, because enforcement agencies are unlikely to understand the range of situations that determine the appropriateness of a conservation measure, and because more overall reduction of water use will occur in the absence of regulatory threats.

CALFED talks about local control of water use efficiency implementation, but state and federal funding and regulatory oversight contradict the notion of local control.

CALFED must supplement its market-based approach to agricultural efficiency with regulatory tools to ensure implementation of a strong water use efficiency program.

The Agricultural Council is virtually powerless as a water use efficiency management entity because it cannot reject a water conservation plan; it can only endorse a plan or take no action.

CALFED should not consider punitive conservation measures such as non-compliance fees, a certification process, SWP or CVP contract provisions, and water right permit conditions.

CALFED has embraced the Agricultural MOU as part of a broader program to ensure agricultural water use efficiency. The Agricultural MOU establishes a dynamic process for listing agricultural efficient water management practices as well as a forum for endorsing water management plans. CALFED has suggested that, as an implementation criterion, an acceptable majority of agricultural water suppliers, comprising at least two-thirds of the total acreage served by districts in the CALFED solution area, should prepare, adopt, receive Council endorsement and begin implementation of their agricultural water management plans by January 1, 1999. This stipulation would result in agricultural water use efficiency being applied to approximately six million acres, which is far beyond the two million acre minimum cited in the MOU for establishment of the Council, and it would provide a window for a voluntary, stakeholder-developed program to succeed. The Program has proposed that if this CALFED implementation criterion is not met, then an additional assurance mechanism might include legislation similar to the Urban Water Management Planning Act. We have also proposed linking the benefits of a CALFED program--access to new supplies and participation in water transfers or a drought water bank--to demonstration of efficient use. CALFED has recognized that for a Bay-Delta solution to be adopted, all stakeholders must have adequate assurance that all parts of the program will be implemented as envisioned. Commitments that are completely voluntary may not provide adequate assurance. to all stakeholders.

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AB 3616 is inadequate to ensure comprehensive implementation of agricultural water use efficiency measures since it emphasizes a planning approach rather than implementation of conservation measures. The MOU does not require districts to measure water deliveries to customers, it does not require districts to use volumetric pricing, it does not account for below market water costs that result from federal subsidies, and it does not establish clearly defined performance criteria. These deficiencies mean that agricultural water users will not receive correct economic signals about their water use, and efficiency measures may fail a farmer's cost-effectiveness test owing to these incorrect economic signals.

The cost effectiveness analysis contained in the Agricultural MOU is based on a five-year time frame for calculating benefits, but savings from an efficiency measure may last longer; consequently, all of a measure's costs are compared to only a fraction of its benefits.

Requiring a positive cost/benefit ratio from the perspective of the end user is an inadequate method for evaluating the cost effectiveness of a water use efficiency measure, because such a method does not capture the below market water costs that many water districts enjoy or the external benefits that water conservation can provide. CALFED should analyze the cost/benefit ratio of a given action in reference to the solution area that CALFED has defined, not the problem area. As a result, CALFED's water use efficiency does not consider the full range of efficiency alternatives.

The AB 3616 MOU should not be viewed in isolation. CALFED also proposes to encourage and facilitate water transfers. The ability to transfer conserved water throughout the CALFED solution area will provide an economic signal and a potential funding source for implementation of some conservation measures.

C—004797

AB 3616 contains lenient exemption provisions. While the Urban Water Use Efficiency MOU requires a signatory to prove a BMP is not cost effective, the Agricultural MOU shifts the burden of proof. Signatories of the Agricultural MOU do not have to prove a BMP to be cost ineffective to be exempt from implementing it. Also, a district can be exempt from water use efficiency actions by claiming such actions will cause third-party impacts, but no documentation of such impacts, or explorations of mitigating them, is required.

The Agricultural Water Management Council has just formed and is just beginning to develop performance criteria for endorsement of water management plans. CALFED will support the Council effort to develop these criteria.

Too much emphasis is placed upon the agricultural community to meet broad water use efficiency objectives. Urban uses of water can improve their efficiencies, and CALFED has yet to apply efficiency criteria to environmental uses of water.

Three CALFED agencies--Fish and Wildlife Service, Bureau of Reclamation, Department of Fish and Game--are working to develop Best Management Practices for environmental diversions. These agencies are working with the Grassland Irrigation District to develop an Interagency Coordinated Program for efficient use of water on refuges and wildlife areas. This effort will include extensive opportunities for stakeholder input, and is scheduled to produce draft products in the Spring of 1998.

Water conservation plans developed under CVPIA and approved by the Bureau should satisfy the plan requirements of the AB 3616 MOU and should not require the additional approval of the Agricultural Council.

The AB 3616 MOU was developed through a long process of negotiation and compromise. Section 3.07 (B) of the MOU states that "Any [water management] plan developed pursuant to the federal criteria may be submitted to the Council for endorsement." If CALFED proposed to alter any single provision of the MOU, then all provisions would once again be open to negotiation and dispute.

CALFED's proposed urban water use efficiency program would restrict a water purveyor's ability to tailor efficiency measures to their local area. Mandating statewide conservation practices and establishing "high floor levels" of conservation implementation undermines local flexibility. CALFED should retain local flexibility over timing and choice of conservation measures to be implemented. Local flexibility is necessary to address the differences in per capita water demand between metered and non-metered water systems.

CALFED does not envision an absolute and inflexible "floor" of urban conservation implementation. A flexible floor is exactly what stakeholders have voluntarily established in the urban MOU, which allows signatories to exempt themselves from specific best management practices with certain justification.

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C-004799

CALFED is placing the landscaping industry at risk through its redrafting of Best Management Practices for landscapes. The CUWCC has been charged with redrafting the landscape BMPs, but the landscaping industry, with considerable professional expertise in this area, lacks representation in the CUWCC.

The Memorandum of Understanding Regarding Urban Water Conservation in California (urban MOU) establishes the California Urban Water Conservation Council (CUWCC) and defines the Best Management Practices (BMPs). The CUWCC has the authority to revise BMPs, and recently adopted changes in BMPs related to landscape water conservation. Although voting membership in the CUWCC is restricted to water suppliers and narrowly defined public advocacy organizations, the CUWCC structure includes a third group of members which can otherwise fully participate in CUWCC activities. The landscape industry is well represented in this third group of members.

While CUWCC is a feasible organization to manage implementation of urban water conservation measures, it is only one option. CALFED should explore other possible management entities. As a voluntary and largely self-selected organization, the CUWCC does not reflect all stakeholders, nor is it currently adequate to assume the responsibilities proposed by CALFED.

CALFED should defer discussions of detailed recommendations of sanctions or enforcement mechanisms for urban water use efficiency programs until additional information is available.

The CALFED proposed approach to water use efficiency was developed in public meetings and workshops over the course of more than a year. There was strong support for including the strengths and benefits of the CUWCC in the CALFED approach. The CUWCC does not represent all stakeholders, but it is the most successful consensus effort regarding urban conservation that has occurred to date. CALFED recognizes that for the CUWCC to certify compliance with the terms of the urban MOU, the CUWCC would need to take on additional responsibilities. CALFED is working closely with the CUWCC and its signatories to study how a certification process, sanctions, and enforcement might be implemented.

CALFED should recognize the extensive implementation of water conservation measures that urban water agencies have already achieved.

CALFED has explicitly recognized the achievements of urban water agencies. The CALFED proposed approach to water use efficiency states that "The greatest current challenge in water use efficiency is finding ways to encourage more water users and water suppliers to implement the proven cost-effective efficiency measures that are being used successfully by their peers throughout the state."

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C-004800

CALFED must not assume that urban water conservation will reduce pumping from the Delta or affect Delta inflow, because all available surface water is used to offset groundwater overdraft, to increase groundwater storage for use during water-short years, and to service an expanding population.

CALFED refers to the potential water quality benefits of water use efficiency, but CALFED should also acknowledge that water quality impacts of water conservation.

CALFED must realize that surface water application provides recharge in areas with overdrafted groundwater basins.

CALFED recognizes that there is a complex relationship between implementation of efficiency measures by urban, agricultural, or environmental water users and the resulting changes that may occur in water quality, groundwater levels, Delta inflow, or Delta export. These relationships will be considered carefully in estimating potential benefits and impacts of water use efficiency.

Proposition 204 does not provide adequate funding for technical and planning assistance for implementing water conservation measures. CALFED should identify additional long-term funding mechanisms.

CALFED recognizes that Proposition 204 does not provide adequate funding to implement long-term assistance programs, and that additional funding will be needed to meet local agencies' demand for assistance. As with other parts of the Program, some guarantee will be necessary to assure that this commitment is implemented as envisioned.

It is unclear who will benefit from water conservation savings.

The California Water Code, Section 1011, protects appropriative rights to water that is conserved. Thus, water users that conserve can determine how the conserved water will be used. This water may be used by the water right holder to meet additional urban demand, irrigate additional acreage, or augment instream flow. Alternatively, the water might be transferred and put to any of the same uses by the transferee, provided the conservation measure yields water not previously available in the system. In general, water conservation will reduce the mismatch between supply and demand, thereby increasing water supply reliability.

C-004800

Better watershed management can increase multiple use and reuse of water.

CALFED recognizes that improved watershed management can yield multiple benefits related to water supply reliability, water quality, and ecosystem quality. A CALFED watershed management program strategy is currently in development.

Aggressive water use efficiency requirements represent technically and economically feasible options for reducing the mismatch between water supply and beneficial uses. Consequently, CALFED must consider aggressive water use efficiency options in order to evaluate a reasonable range of alternatives as required by NEPA and CEQA.

CALFED should not develop additional water storage facilities without first considering aggressive demand reduction.

CALFED's proposed approach to water use efficiency is designed to help local agencies identify and implement technically and economically feasible measures. It also contains assurances that such measures will be implemented before an agency can obtain any new water made available by the CALFED Program, participate in a water transfer, or receive water from a state drought water bank.

Proposals to retire land as a water use efficiency measure are flawed, especially considering the magnitude of land being considered. Land retirement should not be used as a means for taking water away from agriculture.

Retiring farmland is not acceptable.

Land retirement may be a durable and cost-effective way to meet CALFED's water use efficiency goals. CALFED should not prematurely exclude land retirement from analysis.

CALFED does not have a specific goal to fallow or retire farmland. It may occur, however, that farmland or rangeland will be fallowed or retired as an indirect function of potential CALFED Program elements such as water transfers, habitat restoration, or new reservoir storage. As part of its CEQA review, CALFED will be evaluating impacts to prime and unique farmland and will attempt to avoid, minimize and mitigate such impacts as much as possible.

C-004801

C—004801

C-004802

It is against the public interest, and perhaps illegal, to purchase, store or use water for the purpose of diluting pollutants. CALFED should emphasize reducing pollutant loads rather than focusing on pollutant concentrations. (96-316, 97-53, -7, -19)	It is unlikely that water would be used exclusively for the purpose of diluting salinity or other pollutants. Rather, improvements in water quality would be a secondary benefit of water releases for other purposes.
Owing to the many different water quality BMP programs being conducted in the state, CALFED should develop a University of California system-wide water quality BMP program that capitalizes upon the University's unique coordinating infrastructure to organize and fund research, education, and outreach.	CALFED's watershed management program will work to coordinate university and other efforts directed at Best Management Practices.
For pesticides, CALFED should emphasize BMPs that focus upon agronomic practices related to off-site pesticide transport and aquatic toxicity rather than the active ingredients of a pesticide. Historically, focusing upon specific pesticides has only prompted use of other pesticides with less data but comparable or greater impact on aquatic resources.	Though specific pesticides have been identified as CALFED water quality parameters of concern, based on observed toxicity in the aquatic ecosystem, the focus of the CALFED water quality program will be to improve pesticide management practices in general, as opposed to targeting specific chemical agents.
CALFED's objective of reducing pesticide loads applied to land may at times contradict the need to reduce off-side pesticide transport. Reducing off-site transport means more of an applied pesticide will remain on the land, which may keep pesticide loads steady, or even increase them, while water quality gains are achieved. Reducing pesticide loads is an appropriate objective if it eliminates unnecessary pesticide use.	CALFED's focus will be to reduce loads of pesticides entering the Bay-Delta aquatic ecosystem. Reduction of pesticide loads applied to land surface will not be pursued if the effect would be to increase off-site transport. However, in some situations it is likely that off-site transport can be reduced through reduced pesticide applications, and such opportunities will be pursued.
CALFED should encourage regulatory agencies to enforce compliance with water quality BMP implementation.	Nothing CALFED is proposing would diminish the current authorities of regulatory agencies. CALFED's emphasis is on cooperative, voluntary efforts, rather than regulatory enforcement. BMP enforcement and other regulatory actions will be considered after other approaches have been given a chance to be effective.

C-004802

CALFED should explore methods to encourage the development of commercial uses and markets for drainage salts.	Encouraging development of markets for reclaimed salt is within the scope of the CALFED mission and will be pursued.
Achieving reduction of pollutants in urban stormwater runoff will require public education in addition to proposed technical solutions.	Public education is an important element of the CALFED plan for reducing pollutants in urban stormwater.
CALFED must consider aquatic chemistry and toxicology when defining water quality problems and developing control programs in order to employ a technically valid approach.	During prefeasibility, evaluations leading to a final Programmatic EIR/EIS, through early implementation of Category III funding, and through project-specific environmental documentation in Phase III, additional toxicological evaluations will be performed to better define water quality problems and identify solutions.
CALFED has not used a valid scientific process to compile its draft listings of Parameters of Concern and Acceptable Ranges.	The parameters of concern were derived with the input of agricultural, ecosystem, urban and industrial stakeholders and technical experts, and represent the collective wisdom of the participants. The water quality targets generally reflect established regulatory criteria or guidelines. Early implementation projects under Category III, and follow-on studies during Phase III, will increase the scientific support for the Parameters of Concern and water quality targets.
CALFED's reliance upon stormwater detention basins to remove metals may waste public funds since particulate forms of metals may not necessarily present water quality problems. CALFED should consider if contaminants are in toxic and available forms.	As part of the feasibility evaluation that will precede full-scale implementation of all water quality actions, the capacity of detention basins to remove specific metals will be evaluated, as will their chemical availabilities under specified conditions.
CALFED should employ a water quality monitoring method that tests water quality at the receiving waters rather than relying upon curbside monitoring.	CALFED is developing a Comprehensive Monitoring, Assessment, and Research Program that will incorporate water quality assessments of receiving waters.

C-004803

C—004803

Reduction of mercury should be a high priority item owing to bioaccumulation.	As part of Category III Early Implementation projects, consideration will be given to funding research to more fully evaluate the mechanisms by which mercury bioaccumulates and possible control strategies. This work will continue into Phase III, leading to implementation of corrective measures.
CALFED should include aquatic plant nutrients that lead to excessive fertilization of the Delta as a constituent of concern.	Nutrients have been included as a CALFED Parameter of Concern.
CALFED should initiate a pilot study to investigate the formation of bromate and other disinfection byproducts at low bromide concentrations. The study should also explore methods to reduce bromate formation.	Applied research into the mechanisms for disinfection byproduct formation is envisioned as part of the CALFED Comprehensive Monitoring, Assessment and Research Plan.
CALFED should address how waste management activities can affect groundwater quality.	CALFED may address the impact of waste management activities on the quality of groundwater to the extent that such effects impact the quality of the waters in the Bay-Delta estuary and the species dependent on the estuary. No specific instances of such impacts have yet been identified in the CALFED water quality program.
CALFED should ensure that government subsidies for pollution control programs are allocated to research activities and actions that really require government funding (such as land retirement options, abandoned mine sites, etc.) before being provided to private interests.	It is likely that decisions on CALFED funding will be made on the basis of what entity, whether public or private, is best positioned to efficiently and cost effectively implement elements of the program.
CALFED should implement the recommendations of the San Joaquin Valley Drainage Program report, especially using source control to reduce the amount of drainage effluent.	The CALFED water quality program recognizes the salinity problems in the lower San Joaquin River and South Delta and attempts to identify actions to improve water quality in the area. The Programmatic EIR/EIS being prepared, however, will not identify specific projects to accomplish this objective, but rather will provide sufficient latitude to enable implementation of the San Joaquin Watershed Management Plan, or other salinity control projects, during Phase III of the CALFED process.

C-004804
C-004804

CALFED seems to have dropped proposals for land retirement in the western San Joaquin Valley, yet accepts land retirement in the South Delta as a means of minimizing salinity impacts. This is inconsistent. CALFED should continue to evaluate land retirement as a means of improving water quality.

Consistent with the September 1990 report of the San Joaquin Valley Drainage Program, "A Management Plan for Agricultural Subsurface Drainage and Related Problems on the Westside San Joaquin Valley," planning for land retirement under the CALFED Water Quality Program is limited to lands having a combination of greater than 50 ug/L (parts per billion) selenium in the shallow groundwater and relatively low land productivity due to high soil salinity and poor drainage conditions, as defined by USBR Class 4 or equivalent SCS soil classification. By this definition, no South Delta lands are being considered for retirement for the purpose of improving water quality, whereas lands in the western San Joaquin Valley do fit this definition and are being considered for retirement.

C-004805
C—004805

CALFED should address the water supply problems of the entire state in addition to the limited scope of the Bay-Delta.

CALFED is not charged with solving California's water problems; rather, our mandate is to address issues, including water supply issues, as they relate to the Bay-Delta system and its tributary watersheds. The Program's water supply reliability objective is to reduce the mismatch between supply and demand for Bay-Delta water supplies through a variety of options, including water use efficiency measures, market-based transfers, and new storage and conveyance facilities. We will evaluate a range of storage and conveyance options as part of the programmatic EIR/EIS, and by addressing water supply reliability for the Bay-Delta, which is such an important part of the state's water supply system, we may directly address a significant portion of the state's water supply problem. However, we will not define water supply reliability, nor will we evaluate storage options, with the specific goal of satisfying future water needs for the entire state.

In analyzing the Phase II alternatives, CALFED must emphasize nonstructural solutions for improving water supply reliability, including increased water use efficiency and market-based transfers and acquisitions.

CALFED's reliance upon mechanisms that re-allocate existing water supplies are only short-term, interim solutions. CALFED must provide additional storage to combat the state's long-term water shortage problems.

Each alternative should be evaluated so that it first maximizes use of all existing surface and groundwater storage. If such analysis demonstrates that existing water storage facilities are inadequate to meet water supply reliability goals, then CALFED should explore new storage options.

CALFED's hierarchy of storage options lacks rationale and will bias the analysis of potential storage facilities. All storage options should be ranked equally.

Program staff developed a general ranking system to prioritize storage options based upon their relative impacts so that storage options with fewer impacts were ranked higher than those with greater impacts: conjunctive use/groundwater banking; construction of new off-stream surface facilities; expansion of existing on-stream surface facilities; construction of new on-stream surface facilities. This ranking system is meant only as a useful shorthand to reflect the relative impacts of the various storage options. This ranking system does not preclude the consideration of new surface storage facilities, nor will it bias the analysis of the various storage options. Rather, each storage option will receive equal consideration and the general impacts of each will be analyzed at a programmatic level.

CALFED should emphasize surface water storage facilities over conjunctive use programs.

In seeking to increase storage capacity, CALFED should first consider natural methods using floodplain and groundwater storage, prioritizing conjunctive use and groundwater banking before construction of new surface storage facilities. Groundwater storage is more environmentally sensitive and it lessens evaporative losses.

C-004806

C-004806

CALFED should emphasize new storage facilities on the tributaries of the Sacramento River owing to the many benefits such storage would provide, including: local groundwater recharge, optimum flexibility in providing flows for fisheries, and flood control.

There is too much emphasis upon Delta facilities as means for storage and/or conveyance.

In-Delta storage would be too costly and does not provide the flexibility that north-of-Delta storage offers. In-Delta storage options should be abandoned.

Any new storage facilities should be devoted to satisfying shortfalls in existing commitments or attenuating the severity of periodic water shortages; new storage facilities should NOT be used to expand existing commitments or to service new commitments.

The benefits and costs of any proposed storage facilities should be compared to the benefits and costs of implementing extensive water use efficiency.

Any conjunctive use or groundwater banking program must be voluntary and locally controlled, as well as adhere to local groundwater management plans and ordinances.

Since the Program is engaging in a programmatic level of analysis, our impact analysis of potential storage options in Phase II is focusing principally upon general locations of storage sites (north-of-delta, in-delta, and/or south-of-delta) and a general range of storage volumes for each general location. The storage scenarios being studied contain up to 5.7 million acre-feet of surface storage and up to 1 million acre-feet of groundwater storage. To support the decision-making process, Program staff is also conducting pre-feasibility studies on several potential storage sites. Program staff is also coordinating with DWR Northern District staff, which has begun pre-feasibility studies of off-stream storage options as directed by proposition 204, Section 78656. By eliminating infeasible storage options and reducing the list of potential storage sites, Program staff will be able to provide more detailed information regarding storage options to assist the decision-making process.

It is beyond the CALFED Bay-Delta Program's mandate to determine the water rights priorities and uses of water, which is the jurisdiction of the State Water Resources Control Board (SWRCB).

The Program's evaluation of storage facilities does take into account local water use efficiency measures.

The Bay-Delta solution being developed by the Program will comply with existing state and federal laws, and section 1220 of the California Water Code stipulates that export of groundwater must comply with local groundwater management plans that have been approved by a county Board of Supervisors. The Governor's 1992 water policy reiterates this point by directing state agencies to include local government in the decision-making process for a water transfer.

C-004807
C—004807

CALFED and DWR must coordinate their proposed conjunctive use and groundwater banking programs and fully evaluate their impacts, including: subsidence, groundwater depletion, and groundwater quality. CALFED should also evaluate the economic impacts that lowered groundwater elevations may generate, including: extension of pump columns, turbine modification, and increased horsepower requirements.	As part of the programmatic EIR/EIS that the Program is preparing, we will compare the solution alternatives to a No Action alternative in order to assess the benefits and impacts of each of the solution alternatives. DWR's Supplemental Water Purchase Program (SWWP) did not match our criteria for inclusion in the No Action alternative; consequently, the Program's programmatic EIR/EIS will discuss in general the potential impacts and benefits of groundwater management programs that are part of our solution alternatives. We agree that the potential combined impacts of various groundwater programs need to be evaluated prior to implementation, and the full, detailed impact assessments of Phase III will provide the opportunity for a detailed account of all existing groundwater programs.
Pre-project baseline analysis of groundwater supplies must precede adoption of any conjunctive use program. Relying upon impact data after implementation is unacceptable since damage to groundwater aquifers will be nearly impossible to correct.	CALFED is employing a methodical, three-stage approach to conjunctive use programs. The first stage consists of outreach to local communities to learn more about specific local concerns and interests. The second stage includes pilot projects, monitoring and modeling programs. Stage three would include implementation of conjunctive use or groundwater banking with appropriate local controls, monitoring, and mitigation for any significant adverse impacts.
CALFED should extend the Tehama-Colusa Canal to transport large volumes of water to Sites Reservoir, to supplement water supplies at Lake Berryessa, and to provide flexibility in releasing water along the length of the canal to benefit the environment.	The Program is exploring both the extension and the expansion of the Tehama-Colusa Canal; however, detailed modeling of specific facilities would occur in Phase III.

C-004808
C-004808

C-004809

Any isolated conveyance facility should be designed to supply water to any water user currently diverting water from the Delta.

Any unit of water diverted from the Delta by an isolated conveyance facility must be matched by a unit of water to replace that lost in-Delta flow. Consequently, CALFED should emphasize a small isolated conveyance facility, because a large isolated conveyance facility will increase the amount of additional water necessary to meet CALFED's objectives.

Alternative 3, the Dual Conveyance Alternative, has seven variations providing a range of configurations for an isolated conveyance facility. Though each variation does not necessarily provide the opportunity to supply water to all current diverters of Delta water, each of the current seven variations would allow for diversions from an isolated conveyance facility to many parts of the Delta. However, this will not be a criterion for selecting a preferred alternative; such a decision would be made during the site-specific analysis of Phase III. As part of the programmatic Phase II analysis, Program staff will analyze a range of options for an isolated conveyance facility, assessing the impacts of scenarios assuming capacities of 5,000, 10,000 and 15,000 cfs.

C—004809

The direction of the CALFED Levee System Integrity Common Program is unclear.	The Delta Levee System Integrity component of the Program is being developed by a technical team consisting of agency experts, Reclamation District engineers, and local Delta interests. The purpose of the technical team is to prepare technical materials for BDAC for policy deliberation.
Any CALFED levee mitigation or system integrity program should meet Public Law 99 Corps of Engineers standards.	The System Integrity component includes a base level of protection for all Delta levees. This base level of protection will meet the performance criteria for federal flood control project levees.
CALFED should develop cost estimates for upgrading and maintaining levees and develop an implementation plan that identifies existing or potential funding sources.	Program staff are working with agency personnel and stakeholders to identify the funding requirements for upgrading and maintaining levees and develop an equitable cost-sharing plan to integrate federal, state and local funding sources.
CALFED should provide more public discussion of export outages that may result from seismically induced levee failure.	A sub-team of the System Integrity technical team is exploring Delta levee seismic susceptibility to identify the risk to Delta resources during catastrophic seismic events and to develop recommendations to improve the stability of Delta levees.
Levees not part of the CALFED levee setback program or levee system integrity program may be placed at greater risk owing to alterations of other levees as part of either program. CALFED must examine all impacts associated with setback levees.	CALFED will carefully identify and evaluate both the benefits and the impacts associated with setback levees, including how setback levees will work in conjunction with existing levees. Clearly, our goal will be to implement actions that improve, rather than degrade, flood control.

C-004810
C-004810

CALFED should clearly distinguish the difference between the no action alternative and existing conditions, as well as explain their function in the EIR/S process.	The Draft Programmatic EIR/EIS will distinguish the No-Action Alternative from the description of existing conditions and explain how each component functions in the EIR/EIS process.
The lists of physical and biological attributes that will help portray the environmental baseline are inadequate.	In a previous Program document, staff had extracted an abbreviated list from a significantly expanded list of the resource categories and sub-categories to be discussed in the description of the affected environment. The expanded list of resource categories is being used to describe the affected environment in the EIR/EIS.
CALFED should use the entire historic record available for all physical and biological resources in order to portray the affected environment rather than selecting roughly the last ten years, during which time the biological assets have been most degraded.	The Program has formed impact analysis teams for each resource category, and these teams--composed of Program staff, CALFED agency staff and consultants--are determining the appropriate time period to be used in describing the affected environment. Each team will provide a rationale for the period selected.
CALFED should assume full implementation of the CVPIA as part of the regulatory and operational baseline.	Many of the CVPIA actions do not meet the criteria for inclusion in the No Action Alternative. Those CVPIA actions not incorporated into the No Action Alternative are included in the cumulative impact analysis.
CALFED should not use the Bay-Delta Accord or Decision 95-6 to portray existing conditions since they are temporary contractual agreements.	Both the Bay-Delta Accord and Decision 95-6 are currently being implemented; consequently, the Program will use them both in portraying existing conditions.
CALFED should identify sites where restoration projects would displace agricultural in order to evaluate the program's impacts upon prime agricultural land. Where impacts on agricultural resources are identified, the provisions of CEQA for avoidance, reduction, and mitigation of impacts should be followed.	As part of its NEPA/CEQA review, CALFED will evaluate impacts to prime and unique farmland and will attempt to avoid, minimize and mitigate such impacts as much as possible.

C-004811
C-004811

CALFED should model scenarios that include reduced demand in the future to reflect the potential of water transfers, land retirement, and water use efficiency criteria.	Program staff is modeling scenarios in sensitivity analyses that assume reduced future demand for water supplies.
CALFED should model the flow targets contained in the ERPP.	The Program is modeling the flow targets included in the ERPP.
Modeling scenarios should assume that up to one half of diversions to new storage facilities should be credited toward the environmental account.	As a starting point, Program staff is arbitrarily dividing new storage equally among environmental, agricultural, and urban uses, so that each use receives ⅓ of any new storage facility.
When modeling new north-of-Delta storage facilities, CALFED should not use environmental releases from those facilities to meet existing flow requirements, but rather to supplement those targets.	Program staff is striving for fully integrated, optimal operation of the system, which prevents bifurcating environmental flows into existing requirements and supplemental flows.
Modeling should reflect institutional changes as well as physical changes.	Several institutional changes are being modeled, including: CVPIA implementation, future water quality requirements, human population growth, and "wheeling" water between the SWP and CVP.
Water supply modeling and water quality modeling are interdependent. CALFED should not defer the study of how different inflows and exports affect salinity distribution in the Delta. CALFED needs to study the water quality benefits and impacts of each storage and conveyance alternative using a salinity transport model. Simulating the effects of various operation rules without verifying the salinity impacts could lead to errors in yield prediction if water quality objectives are not met.	CALFED is moving as expeditiously as possible to assess the water quality benefits of each storage and conveyance alternative. CALFED is conducting preliminary DWRSIM and DSM modeling runs in parallel, rather than deferring the DSM runs until all the operating assumptions, preprogramming, and alternative storage configurations have been refined for the DWRSIM modeling runs. As soon as possible, DWRSIM and DSM runs will be linked to provide a comprehensive and consistent evaluation of alternative performance. These linked runs will provide the confirmation of standards compliance or provide the guidance required to modify alternatives to achieve such compliance.

C-004812
C—004812

CALFED needs to develop cost estimates of facilities and programs and relate them to the benefits for each of the common programs. There should be some overall estimate of how much funding will be required by water users and state and federal governments.

Environmental restoration programs may provide significant benefits to water storage and conveyance. Restoration programs that are treated as costs should also be recognized for the long-term economic benefits they can provide.

CALFED should develop a water user fee or a wheeling charge to be paid to riparian counties to provide long-term funding for levee maintenance, restoration actions, flood detention, and aquifer replenishment. Many local flood control agencies are charged with maintaining sections of rivers and bypasses, without any outside funding, that essentially serve as delivery channels for the SWP and CVP.

CALFED should explore local public funding of restoration projects that are of local scope and are not amenable to private funding.

Recreation user fees to not cover all recreation costs.

Any new water user fees must sunset once funds are recovered for the specific purpose or duration intended.

CALFED should not consider water user fees or taxes.

The CALFED financial plan must include significant financial commitments from state and federal agencies.

Program staff is working with stakeholders through the BDAC Finance Work Group to develop a Financial Strategy. The Financial Strategy will attempt to identify the diverse benefits of Program actions and relate them to costs in order to assist the development of cost allocation policies.

In general, the Program has adopted a benefits-based approach to determining how costs should be allocated. The Program has not yet determined which specific revenue tools may be adopted, nor has any specific funding mix been selected. However, for purposes of assessing the preferred alternative, the Program does plan to provide information that will enable evaluation of the ranges of costs that might be experienced by those paying for the solution.

The Program will continue to address these issues in the development of the Financial Strategy.

C-004813

C-004813

A largely unrestricted free market will transfer water away from agriculture since the agricultural industry cannot compete with environmental acquisition of water financed by public funds or the financial resources of urban water agencies. Free marketing of water from one use to another is bad public policy. Lands zoned for a particular use should retain the water necessary to sustain that use.

The proposed Model Water Transfer Act is seriously flawed in several respects, including: inadequate protection for third parties; and the burden of proof is shifted to potentially injured parties.

CALFED should avoid transferring water from the CVP since this would decrease flows in the San Joaquin River, which is an important source of groundwater replenishment.

CALFED must encourage water transfers among urban water users, including urban industries and urban residents.

Water transfers should not be used as a means of encouraging urban or suburban sprawl, and potential recipients of water via water transfers must be required to show efficient use of their existing water supplies before water transfers are approved.

Water transfers that would degrade groundwater quality or overdraft groundwater basins should be denied.

In areas where groundwater is the sole source of water supply, there should be no transfer of groundwater.

Water transfers can be an effective mechanism for meeting many of the CALFED Bay-Delta Program's objectives. For instance, the ability to market water can serve as an important incentive to stimulate implementation of water use efficiency measures. The Program envisions a properly regulated water market that both facilitates water transfers between willing buyers and sellers and addresses potential impacts of transfers. A CALFED water transfers policy must conform with the Program's adopted solution principles-- including the principle that the CALFED Program must have no significant redirected impacts--and the Governor's 1992 Water Policy, which delineates five criteria for water transfers:

1. Water transfers must be voluntary, and they must result in transfers of real water, not "paper" water.

2. Water transfers must not harm fish and wildlife resources and their habitats.

3. Water transfers will not cause overdraft or degradation of groundwater basins.

4. Entities receiving transferred water should be required to show that they are making efficient use of existing supplies.

5. Water districts and agencies that hold water rights or contracts to transferred water must have strong role in determining potential transfers.

Avoidance and mitigation of impacts to the environment and third parties will be important policies for BDAC consideration. In addition, the Program's environmental documents will assess the potential impacts of transfers.

C-004814
C-004814

Since many proposed CALFED actions may encourage water transfers, BDAC must develop policy recommendations to ensure a water market conforms to CALFED's guiding principles. CALFED should convene a BDAC Water Transfer Work Group to consider water transfer issues, especially since water transfers seem to be an underpinning of the Program and not much progress has been made in resolving water transfer issues.

Any new BDAC Water Transfer Work Group should provide representation that correlates to the percentage of proposed transfer water to be derived from local resource areas.

The Bay-Delta Advisory Council has formed a Water Transfers Work Group to provide a forum for focused policy discussions on water transfers. Like other BDAC Work Groups, the Water Transfers Work Group is composed of BDAC members. To assure that all stakeholder views are adequately represented, additional invited participants have been selected, and all work group meetings are open to the public.

C-004815

C—004815

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